The opinion in support of the decision being entered today was  $\underline{\text{not}}$  written for publication and is  $\underline{\text{not}}$  binding precedent of the Board.

Paper No. 24

#### UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS

AND INTERFERENCES

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Appeal No. 2004-1954
Application No. 09/917,539

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ON BRIEF

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Before GARRIS, WALTZ, and PAWLIKOWSKI, <u>Administrative</u> Patent Judges.

PAWLIKOWSKI, Administrative Patent Judge.

# DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1 through 30.

Claims 1 and 19 are representative of the subject matter on appeal and are set forth below:

1. A low spin golf ball comprising:

a core including a core component and a spherical mantle encompassing said core component, said mantle

comprising (i) a polymeric material, and (ii) a reinforcing material dispersed throughout said polymeric material, said core having a Riehle compression of at least about 75; and

a polymeric outer cover disposed about said core, said polymeric cover comprising a material selected from the group consisting of a high acid ionomer, a low acid ionomer, an ionomer blend, a non-ionomeric elastomer, a thermoset material, and combinations thereof, said polymeric cover having a Shore D hardness of at least about 65.

## 19. A golf ball comprising:

a core including a core component and a vitreous mantle enclosing said core component, said core having a Riehle compression of from about 75 to about 115; and a polymeric outer cover disposed about said mantle, said cover having a Shore D hardness of at least about 65.

On pages 3 and 4 of the Brief, appellants state that claims 1, 19, and  $28^1$  are each separately patentable. To the extent that any one claim is argued separately, we will consider such claim in this appeal. 37 CFR § 1.192(c)(7) and (8) (2003).

The examiner relies upon the following references as evidence of unpatentability:

Schenk	4,085,937	Apr.	25,	1978
Shama	4,848,770	Jul.	18,	1989
Boehm et al. (Boehm)	5,683,312	Nov.	4,	1997
Cavallaro et al. (Cavallaro '191)	5,688,191	Nov.	18,	1997
Cavallaro et al. (Cavallaro '678)	5,810,678	Sep.	22,	1998
Sullivan et al. (Sullivan)	5,820,489	Oct.	13,	1998
Harris et al. (Harris)	5,856,388	Jan.	5,	1999

 $^{\rm I}\,\mbox{We}$  believe that appellants intended to state "claim 28" rather than claim 27.

Claims 1 through 6 and 8 through 18 stand rejected under 35 U.S.C. § 103 as being unpatentable over Sullivan in view of Cavallaro '191 and Cavallaro '678 and Harris.

Claims 7 and 19 through 30 stand rejected under 35 U.S.C. § 103 as being unpatentable over Sullivan in view of Cavallaro '191 and Cavallaro '678 and Harris, and further in view of Shama and Schenk and Boehm.

# OPINION

We have carefully considered the Examiner's Answer and appellants' Brief and Reply Brief, and the applied references. This review has led us to conclude that each of the rejections is well founded.

Beginning on page 6 of the Brief, appellants argue that there is no suggestion in Cavallaro '191 or Sullivan to motivate one skilled in the art to add a mantle to the golf ball of Sullivan. Appellants argue that one skilled in the art would not have been motivated to add a mantle layer to the golf ball of Sullivan, because Sullivan specifically teaches a two piece golf ball having a large core and a larger, thicker cover, and it is the combination of the soft core and the thicker cover that provides the good feel and lower spin in Sullivan. On page 3 of the Reply Brief, appellants further argue that Sullivan is directed to decreasing the spin rate, whereas Cavallaro '191 is directed to an increase in spin rate.

On page 7 of the Answer, the examiner rebuts and states that Cavallaro '678 teaches that the incorporation of a soft mantle layer overcomes the conventional two piece hard feel and refers to column 4, lines 28-60 of Cavallaro

'678. The examiner states that Cavallaro '678 specifically teaches "a golf ball that has durability, a low spin rate and substantial distance more like a conventional two piece ball, but has a soft feel by using a soft, high specific gravity mantle layer and a soft core." The examiner refers to column 4, lines 33-38 and column 14, lines 31-43 of Cavallaro '678 in this regard. We agree with the examiner that these teachings of Cavallaro '678 support the examiner's obviousness rejection. Appellants do not dispute these teachings of Cavallaro '678.

Furthermore, we note that golf ball properties, such as spin, are result effective variables. See for example, column 7, lines 29-34 of Cavallaro '191. Hence, modifying the golf ball of Sullivan according to the teachings of Cavallaro '678 to affect properties such as spin and feel would have been obvious. Absent evidence of secondary considerations, such as a showing of unexpectedly superior results, we determine that choosing a known configuration (adding a mantle layer to the golf ball of Sullivan) for its known properties, for optimizing particular properties of a golf ball, would have been <a href="mailto:prima">prima</a> facie</a> obvious, as concluded by the examiner. <a href="mailto:See">See</a>, <a href="mailto:In re Aller">In re Aller</a>, <a href="mailto:220">220</a> F.2d 454, <a href="mailto:456">456</a>, <a href="mailto:105">105</a> USPQ 233, <a href="mailto:235">235</a> (CCPA 1955). We need not discuss the other references of Cavallaro '191, Harris, Shama, <a href="mailto:Schenk">Schenk</a>, or Boehm, in making this determination.

Beginning on page 9 of the Brief, appellants also argue that the combination does not disclose a mantle comprising a polymeric material having a reinforcing material dispersed throughout the polymeric material as claimed in claim 1, component 2. On page 9 of the Answer,

the examiner rebuts and states that he agrees that Cavallaro '191 is silent with respect to adding a reinforcing material in the polymeric material. However, the examiner correctly points out that Cavallaro '678 explicitly teaches that the addition of fillers or reinforcing materials to the mantle and cover layers of a golf ball will improve the moment of inertia and lower the spin rate and the examiner refers to column 14, lines 31-44 of Cavallaro '678. The examiner correctly concludes that it would have been obvious in view of Cavallaro '678 to have provided a mantle layer with reinforcing materials throughout the polymeric material in order to improve the moment of inertia and lower the spin rate should a lower spin rate be desired. We agree.

On page 7 of the Brief, appellants also argue that the combination of Sullivan or Cavallaro '191 does not teach a core having a core component and a mantle layer wherein the combined core component and mantle layer has a Riehle compression of at least 75. Appellants argue that Sullivan teaches a Riehle compression of about 75 to 115. Appellants argue that if a mantle layer was added to Sullivan, the core mantle layer combination would not necessarily have a Riehle compression of at least 75.

Claim 1 recites that the <u>core</u> has a Riehle compression of at least about 75. Appellants' specification also indicates that the core (no mantle layer included) has a Riehle compression of about 75 or more. See page 13, lines 15-20 of appellants' specification. Also, column 3, at lines 22-24 of Cavallaro '678, indicates that the core and mantle layers each have respective values, such as Shore D

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hardness values. Hence, it appears that appellants are arguing limitations that are not recited in the claims. Hence, we are not convinced by such arguments.

With regard to the rejection that includes a rejection of claims 19 and 28, on page 13 of the Brief, appellants set forth the same arguments with regard to the combination of Sullivan and Cavallaro '191. On page 14 of the Brief, appellants state that the references of Shama, Schenk and Boehm do not remedy the defect regarding the combination of Sullivan and Cavallaro '191. For the same reasons provided above with regard to the 35 U.S.C. § 103 rejection of claims 1 through 6 and 8 through 18, we also affirm the 35 U.S.C. § 103 rejection of claims 7 and 9 through 30.

#### CONCLUSION

Each of the obviousness rejections is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR \$ 1.136(a).

### AFFIRMED

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BRADLEY R. GARRIS

Administrative Patent Judge

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BOARD PATENT

THOMAS A. WALTZ

Administrative Patent Judge

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BEVERLY A. PAWLIKOWSKI

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BAP:psb

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